

Remarks/Arguments

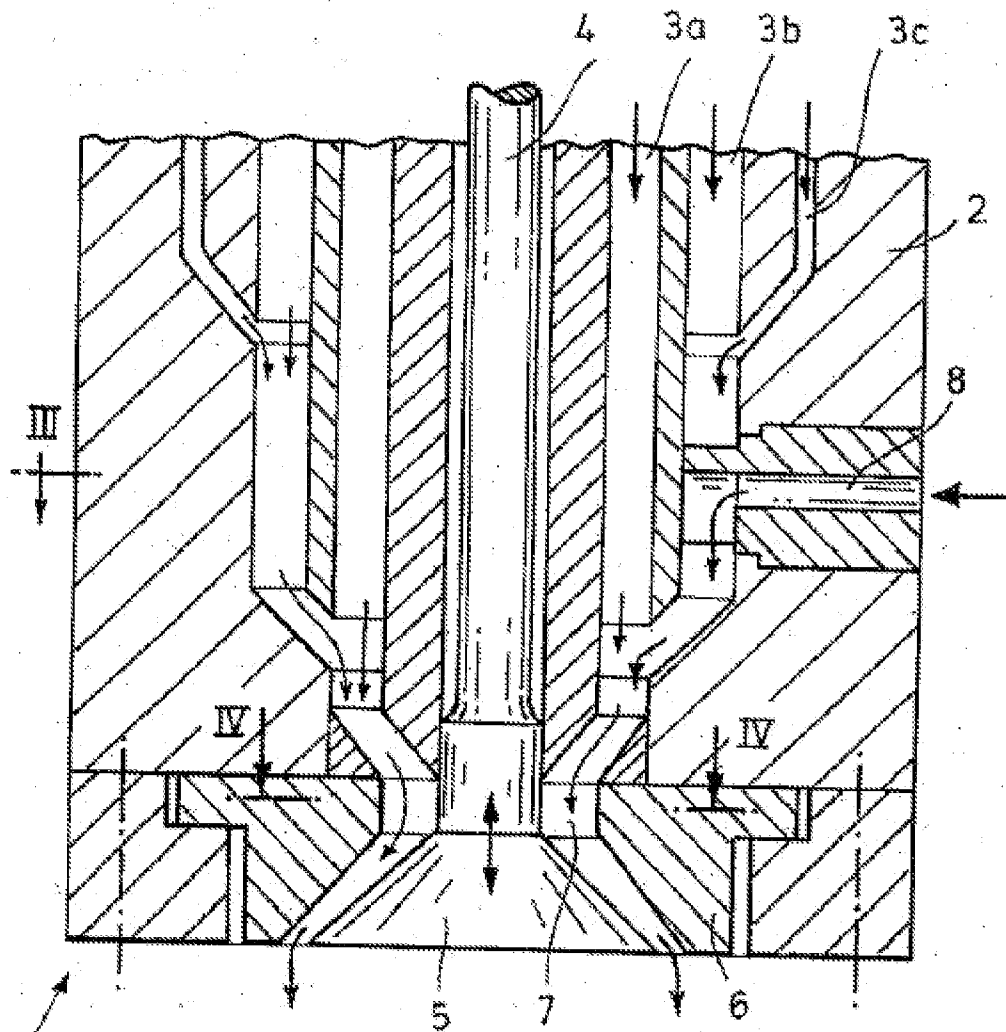
Claims 1-12 are pending in the Application. Claims 8-12 were withdrawn without traverse in a Response To Restriction Requirements of April 11, 2006. Reconsideration and re-examination are respectfully requested.

The Examiner first objected to the title of the Application in light of the election according to the restriction requirement. This has been corrected in the Amendments to the Specification section of this paper to reflect the title of the invention being changed to "Extrusion Head".

Turning to the rejection of the claims, claims 1-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa, et al. (United States patent No. 4,134,952) in view of Richter (United States Patent No. 6,764,639), Hirschberger (United States Patent No. 5,221,540) and applicant's admission (at page 10, lines 21-22 of the Specification.

The present invention is directed at an extrusion head for producing a tubular multilayer preform of softened thermoplastic material with at least one viewing strip of translucent material extending in the extrusion direction. An example of the invention is provided by **FIG. 1** of the present invention, and to facilitate the remarks provided herein, Applicant has reproduced **FIG. 1** below:

Fig.1

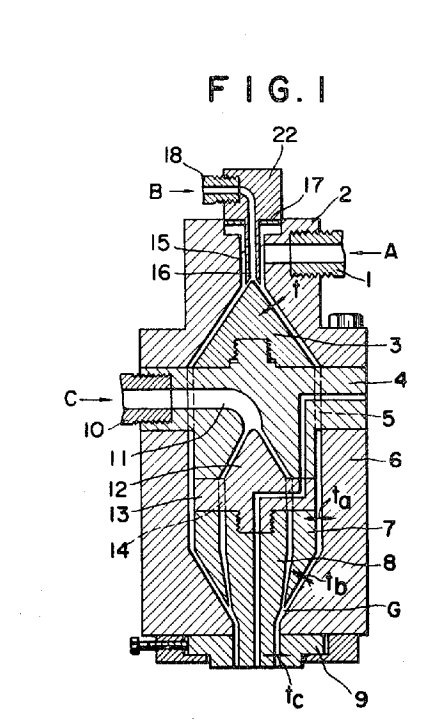


The head **1** comprises a plurality of annular passages **3a**, **3b** and **3c** in mutually concentric relationship for forming mutually separate flow paths for forming the various layers of the preform. The head further includes at least two flow paths from at least one extruder, an annular gap nozzle having an annular gap **7** and at least one flow passage opening **8** for introducing material forming the viewing strip, the flow passage opening **8** upstream of the annular gap **7** in the region of separation of the flow paths (see again,

annular passages **3a**, **3b** and **3c** and note the location of the wall sections (cross-hatched) between **3a**, **3b** and **3c**). It can therefore be seen that the flow passage opening **8** is clearly located at the region where the flow paths are separated.

Turning to the principal reference of Yoshikawa, et al. ('932), it can be seen that this reference simply discloses an extrusion die designed for extruding two or more adjacent layers of a laminated structure in a tubular state through a nozzle which form an annular gap. Yoshikawa, et al. ('932) is directed at improving the adhesion between adjacent resin layers during co-extrusion by inserting a thin adhesive layer between adjacent layers of a laminated structure during the forming thereof (column 1, lines 59-65 of '932). As the Examiner points out, Yoshikawa, et al. does not disclose a preform with at least one viewing strip of translucent material in the extrusion direction or at least one flow passage opening into an annular passage for introducing material for forming the viewing strip, the flow passage opening upstream of the annular gap in the region of separation of the flow paths.

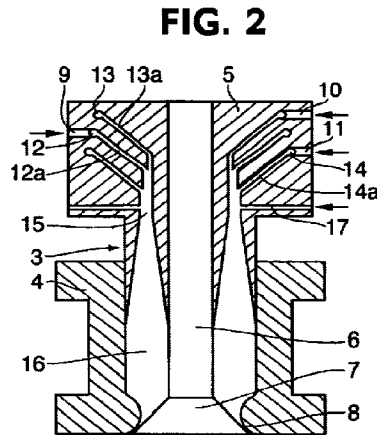
Furthermore, Yoshikawa's extrusion head is illustrated below:



As can be seen, quite apart from not teaching or suggesting the use of a viewing strip, Yoshikawa's extrusion head contains inlet pipes 1, 10 and 18. However, as noted above, and now with specific reference to the illustration provided by Yoshikawa, there is clearly no teaching or suggestion of a flow passage opening into an annular passage for introducing material for forming the viewing strip, as well as any sort of teaching or suggestion that such flow passage opening is placed upstream of an annular gap in the region of separation of flow paths.

The above being the case, it is Applicants position that the primary reference of Yoshikawa that would not appear to motivate anyone to consider the teachings of any of the secondary references currently relied upon in advancing the outstanding rejection under 35 USC 103. This observation is believed to be further supported after one considers a review of the secondary references, provided below.

Richter ('639) discloses a process of extruding a multi-layer tube-like preform with a translucent viewing strip running in the axial direction. Richter further discloses a torpedo 18 (see **FIG. 3**) for dividing the flow of the multiple layers and introducing the translucent strip material. However, Richter introduces the strip material downstream of the location where the different flow paths for the three layers (inner, center, outer) merge. For the Examiner's convenience **FIG. 2** of Richter is reproduced below:



Specifically, it can be seen that Richter includes bores **9**, **10** and **11** which allow the materials to form concentric layers before flow channel **17** introduces the translucent strip material. This results in one problem that the present invention solves, that is with Richter it is not possible to determine with any precision the location of the strip within and between the three layers. If, following the teachings of Richter, the strip material extends into, or through a clear inner layer, that layer may be substantially weakened. If the strip material only partially resides in the middle layer, the ability to see the fluid level through the strip will be reduced.

The present invention overcomes these possibilities by allowing for the introduction of the strip material into, e.g., the combination of the middle and outer layers before they are merged with the clear inner layer. Richter at column 3, lines 20-21 recites "[t]orpedo **18** extends up as far as the plastic melt forming the inner layer of the preform, which is not colored", but does not disclose how this is controlled. In other words, the problem of weakening the inner layer or providing a strip with depth controlled between layers is not contemplated. Or, stated another way, Richter, as in the primary reference, does not disclose the feature of an upstream flow passage opening into an annular passage for introducing material for forming the viewing strip such that the flow passage opening is placed upstream of an annular gap in the region of separation of flow paths.

Turning to Hirschberger (United States Patent No. 5,221,540), this reference is directed at an extrusion head assembly including an apparatus which circumferentially positions a view strip such that the strip will correspond with a mold parting line of a container blow molded from the parison. A single layer (colored) parison is formed with a clear strip located within the clear layer.

Hirschberger is therefore completely silent as to locating a translucent strip in a multi-layer preform and controlling the position of the translucent strip material. More basically, and again as pointed out above with respect to Yoshikawa and Richter, Hirschberger does not teach or suggest the feature of an upstream flow passage opening into an annular passage for introducing material for forming the viewing strip such that the flow passage opening is placed upstream of an annular gap in the region of separation of flow paths.

Thus, it is believed that the present invention is distinguished over the prior art cited, and combination thereof, for the reasons set forth above. Applicants therefore also trust that the Examiner may now appreciate why the Applicants did not feel it necessary to amend the claims based upon the art of record.

Accordingly, in consideration of the remarks hereinabove, Applicant respectfully submits that all claims currently pending in the application are believed to be in condition for allowance. In addition, in the event the Examiner deems personal contact desirable in disposition of the case, the Examiner is respectfully requested to call the undersigned attorney at (603) 668-6560.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account No. 50-2121.

Respectfully submitted,

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